

## Claims

1. A composition useful for hepatoprotection, said composition comprising effective amount of polar solvent extract (A001) from plant *Cryptolepis buchanani* and optionally pharmaceutically acceptable additives.
2. A composition as claimed in claim 1, wherein said additives are selected from a group of nutrients comprising proteins, carbohydrates, sugar, talc, magnesium stearate, cellulose, calcium carbonate, starch-gelatin paste, and/or pharmaceutically acceptable carrier, excipient, diluent, or solvent.
3. A composition as claimed in claim 1, wherein polar solvents are selected from a group comprising alcohol, rectified spirit, aqueous rectified spirit, and water.
4. A composition as claimed in claim 1, wherein said extract and additives are in the ratio ranging between 1:1 to 1:10.
5. A method of preparing polar solvent extract A001 and its four fractions F001, F002, F003, and F004 from plant *Cryptolepis buchanani* having hepatoprotective activity, said method comprising:
  - (i) powdering said plant,
  - (ii) percolating said powder in cold with polar solvent,
  - (iii) concentrating said percolate to prepare polar solvent extract (A001)
  - (iv) triturating said extract successively with solvents of increasing polarity using hexane and chloroform,
  - (v) collecting fractions F001 and F002 respectively with said solvents and a residue,
  - (vi) partitioning said residue between n-butanol and water of ratio 5:1, and
  - (vii) collecting n-butanol soluble fraction (F003) and water soluble fraction (F004).
6. A method as claimed in claim 5, wherein root and aerial part of said plant are preferred plant parts for said activity.

7. A method as claimed in claim 5, wherein polar solvent is selected from a group comprising methanol, propanol, and ethanol.
8. A method as claimed in claim 5, wherein polar solvent is preferably 95% ethanol.
9. A method as claimed in claim 5, wherein percolated plant in polar solvent is at concentration ranging between 100-500gms/liter.
10. A method as claimed in claim 5, wherein percolation is for time duration ranging between 14-18 hours.
11. A method as claimed in claim 5, wherein percolated extract is concentrated by evaporation under reduced pressure.
12. A method as claimed in claim 5, wherein percolated extract is concentrated at temperature ranging between 40-50<sup>0</sup> C.
13. A method as claimed in claim 5, wherein percolated extract is concentrated at temperature preferably about 45<sup>0</sup> C.
14. A method as claimed in claim 5, wherein percolated extract is finally dried in vacuum.
15. A method as claimed in claim 5, wherein trituration rate is ranging between 15-35 ml/minute.
16. A method as claimed in claim 5, wherein trituration rate is preferably about 23 ml/minute.
17. A method as claimed in claim 5, wherein triturating with each of the said solvents for time duration ranging between 20 to 40 minutes.
18. A method as claimed in claim 5, wherein said fractions have concentration of :
  - (a) F001 – about 11% (w/w),
  - (b) F002 – about 15 % (w/w),
  - (c) F003 – about 40% (w/w), and
  - (d) F004 – about 35% (w/w).
19. A composition useful for hepatoprotection, said composition comprising effective amount of fraction F003 of claim 5 from plant *Cryptolepis buchanani*, and optionally pharmaceutically acceptable additives.

20. A composition as claimed in claim 19, wherein additives are selected from a group of nutrients comprising proteins, carbohydrates, sugar, talc, magnesium stearate, cellulose, calcium carbonate, starch-gelatin paste, and/or pharmaceutically acceptable carrier, excipient, diluent, or solvent.
21. A composition as claimed in claim 19, wherein said fraction and additives are in a ratio ranging between 1:1 to 1:10.
22. A method of treating subjects for developing hepatoprotection using composition comprising effective amount of extract A001 and/or fraction F003 from plant *Cryptolepis buchanani* and optionally pharmaceutically acceptable additives.
23. A method as claimed in claim 22, wherein the additive is selected from a group of nutrients comprising proteins, carbohydrates, sugar, talc, magnesium stearate, cellulose, calcium carbonate, starch-gelatin paste, and/or pharmaceutically acceptable carrier, excipient, diluent or solvent.
24. A method as claimed in claim 22, wherein said composition is effective against hepatotoxins selected from a group comprising Paracetamol, D-Galactosamine, and Carbon tetrachloride.
25. A method as claimed in claim 22, wherein said method involves administering said extract and/or fraction orally, inhaled, or implanted.
26. A method as claimed in claim 22, wherein the physical state of said composition for the oral route is in the form of capsule, tablet, syrup, concentrate, powder, granule, aerosol, or beads.
27. A method as claimed in claim 22, wherein said extract and fraction are in a ratio ranging between 1:10 to 10:1.
28. A method as claimed in claim 22, wherein administering said extract and/or fraction at concentration ranging between 100-500-mg/kg.

29. A method as claimed in claim 22, wherein administering said extract and/or fraction at concentration preferably about 270 mg/kg.
30. A method as claimed in claim 22, wherein said composition of said extract and optionally pharmaceutically acceptable additives shows % hepatoprotective activity of:
- (a) GPT ranging between 70–90,
  - (b) GOT ranging between 65-95,
  - (c) ALP ranging between 70-95,
  - (d) Bilirubin ranging between 65-95,
  - (e) Triglycerides ranging between 60-99,
  - (f) Lipid Peroxidation ranging between 70-95, and
  - (g) Glutathione ranging between 65-99.
31. A method as claimed in claim 22, wherein said composition of said fraction and optionally pharmaceutically acceptable additives shows % hepatoprotective activity of:
- (a) GPT ranging between 60–80,
  - (b) GOT ranging between 55-65,
  - (c) ALP ranging between 65-75,
  - (d) Bilirubin ranging between 70-80
  - (e) Triglycerides ranging between 60-65,
  - (f) Lipid Peroxidation ranging between 65-85, and
  - (g) Glutathione ranging between 65-85.
32. A method as claimed in claim 22, said method is useful for treating animals and/or human beings.
33. A method as claimed in claim 22, wherein said method shows said composition to be more effective than commercially available hepatoprotectants.
34. A method as claimed in claim 22, wherein said method using said composition has no adverse effect on health.